

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/014937 A2

(51) International Patent Classification⁷: E02B
(21) International Application Number: PCT/US2004/025634
(22) International Filing Date: 9 August 2004 (09.08.2004)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data: 60/493,511 8 August 2003 (08.08.2003) US

(71) Applicant and
(72) Inventor: TUCKER, Randall, L. [US/US]; 7440 Town-
ship Road 95, Findlay, OH 45840 (US).

(74) Agent: NAUMAN, Timothy, E.; Fay, Sharpe, Fagan,
Minnich & McKee, LLP, 1100 Superior Avenue, 7th Floor,
Cleveland, OH 44114 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, GR, GU, HK, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

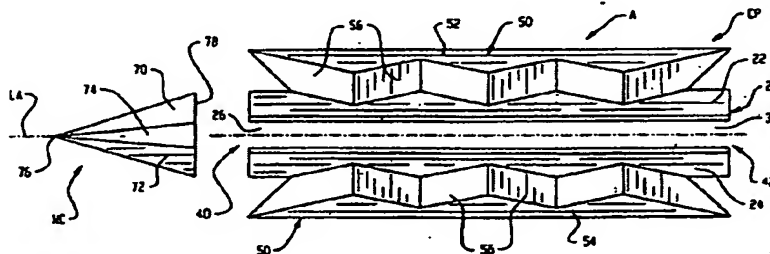
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: BIO-PASSAGE FOR DISRUPTING LAMINAR FLOW



(57) Abstract: An apparatus or biopassage (A) includes a housing (20) dimensioned for receipt in a waterway during an increased flow event. The housing has a passage: (26) that provides a region of reduced flow generally irrespective of the flow external to the passage. A flow disrupter (50) disturbs laminar flow in the waterway above the passage. A preferred embodiment of the disrupter includes surfaces (52, 54) disposed in angled relation relative to a common apex (60) located above a longitudinal opening (30) of the passage. The surfaces include a series of peaks and valleys formed by angled planar portions (56) in one arrangement. A deflector (NC) is positioned upstream of an inlet end (40) of the passage to direct water away from the passage.

WO 2005/014937 A2